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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,535	10/26/2001	Heather D. Boek	SP01-253	4706

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EXAMINER
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HOFFMANN, JOHN M

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 10/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/035,535

Applicant(s)

BOEK ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### **DETAILED ACTION**

Prosecution is reopened to clarify the rejection. There is no change in position.

Applicant is may reinstate the appeal, or amend the claims.

#### ***Claim Rejections - 35 USC § 112.***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 16-18 and 29-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is no support for the new limitation of improving a mismatch. Examiner could find no support for this limitation, moreover, the claims as originally filed required the opposite: improving the match.

#### ***Claim Rejections - 35 USC § 103***

Claims 32-35 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kyoto 5145507.

See figure 3 and the text which describes it. The particular gases and pressures are method of use limitations and do not substantially impart any structural limitations of the apparatus.

Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa 6116055 , and further in view of Kingery's "Introduction to Ceramics, pages 219-226.

Ishikawa clearly discloses the invention as claimed (for example in Example 1). However, Ishikawa does not disclose the specific pressure limitation. Although, col. 1, lines 60-65 acknowledges the possibility of using a pressure greater than.

Kingery is directed to Fick's laws of diffusion. One of ordinary skill in art is familiar with such laws. It is easy to see from the equations (for example equation 6.21) that the higher the concentration of solute (chlorine in the present invention and in Ishikawa) the more of the solute diffuses into the body. And from routine application of the Ideal gas law, one knows that the higher the pressure of the gas, the higher the concentration of the solute. It would have been obvious to use a high a pressure as reasonably possible in the Ishikawa method, so as to maximize the amount of chlorine in the preform. Alternatively, this second reference is used to further demonstrate that pressure is a result effective variable.

Claim 10: from equation 6.11 of Kingery, it is clear that diffusion depends on the temperature. It would have been obvious to come as close to the 1300 C upper limit

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that Ishikawa teaches without going over, because the higher the temperature the quicker the reaction.

Claims 19-31 are met for the reasons given above: the claims have the same limitations addressed above.

Claims 16 and 29: one could arbitrarily designate any preform to be "like" any other preform in that they are both preforms, or that they are both cylindrical. One can also designate what one constitutes an improvement as being either a reduction or an improvement - the claim does not specify in which way the mismatch is improved.

The limitations of the dependent claims are met as per the rejection of 7/10/03.

***Claim Rejections - 35 USC § 102***

Claims 32-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Kyoto 5145507. (See previous rejection).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

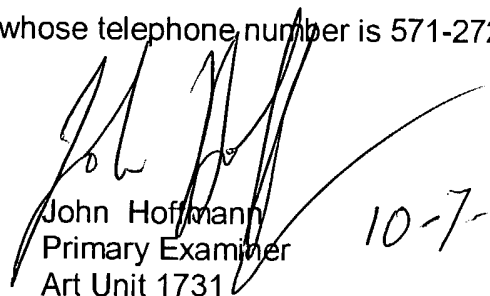
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1700.

  
John Hoffmann  
Primary Examiner  
Art Unit 1731

10-7-04

jmh